

**Notice of Allowability**

Application No.

10/535,554

Examiner

Gary L. Laxton

Applicant(s)

DONALDSON ET AL.

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed 5/18/2005.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 5/18/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

/Gary L Laxton/

Gary L. Laxton    6/8/2007  
Primary Examiner  
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## DETAILED ACTION

### ***Allowable Subject Matter***

1. Claims 1-18 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Claims 1-9; prior art fails to disclose or suggest, *inter alia*, a device comprising: a floating bus; a power system for driving the floating bus, the power system comprising a charge pump circuit; and wherein a voltage signal at an input of the at least one switch circuit is floating, and wherein the at least one switch control circuit includes a level shifting circuit for adjusting a control signal level to the at least one switch circuit.

Claims 10-13; prior art fails to disclose or suggest, *inter alia*, a circuit comprising: a first switch circuit for electrically coupling to a high side bus node of a floating bus, and a second switch circuit for electrically coupling to a low side bus node of the floating bus; and wherein a first reference signal for the first switch circuit and a second reference signal for the second switch circuit are floating when the first switch circuit and the second switch circuit are ON; at least one switch control circuit including logic for adjusting a control signal level to the first switch circuit and to the second switch circuit.

Claims 14-17; prior art fails to disclose or suggest, *inter alia*, a method comprising: providing a first switch circuit for electrical coupling to a high side bus node of a floating bus and a second switch circuit for electrical coupling to a low side bus node of the floating bus; and wherein the first reference signal and the second reference signal are both floating when the first

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switch circuit and the second switch circuit are ON; and wherein the first control signal level and the second control signal level are translated control signals relative to a value of at least one of the floating first reference signal and the floating second reference signal.

Claim 18; prior art fails to disclose or suggest, *inter alia*, a circuit comprising: a first switch circuit for electrically coupling to a high side bus node of a floating bus, and a second switch circuit for electrically coupling to a low side bus node of the floating bus; wherein the first reference signal and the second reference signal are both floating when the first switch circuit and the second switch circuit are ON; wherein the first control signal level and the second control signal level are both translated control signals relative to a value of at least one of the floating first reference signal and the floating second reference signal.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,424,202 Bartlett disclose a voltage generator having a capacitor with the negative node floating; US 6,198,645 Kotowski et al. disclose a buck boost switched capacitor stage with a capacitor terminal floating; US 5,581,454 Collins discloses a high power switched capacitor conversion apparatus; US 5,491,623 Jensen discloses a voltage multiplier using switched capacitance with a floating input terminal.

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary L. Laxton whose telephone number is (571) 272-2079. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on (571) 272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gary L Laxton/

Gary L. Laxton  
Primary Examiner  
Art Unit 2838

6/8/2007